

**Notice of Allowability**

Application No.

10/537,601

Examiner

RuiMeng Hu

Applicant(s)

PRONKINE, VIATCHESLAV

Art Unit

2618

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 05/20/2007.
2. ☒ The allowed claim(s) is/are 22-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

## DETAILED ACTION

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Richard B. Main on July 30, 2007 and July 31, 2007.

The application has been amended as follows:

a) In Figure 1, label --Prior Art--.

b) In Figure 2, label --Prior Art--.

c) **Claim 22.** An antenna system for receiving diversity signals from a single antenna, comprising: a single antenna [for connection] connected to a receiver by an inner conductor and an outer conductor of a coax cable; said inner and outer conductors receiving a signal from a transmitter; a first device for [differential extraction of] differentially extracting a first diversity signal from said received signal across said inner conductor and outer conductor at a near end of said coax cable in a differential mode; and a second device for single-ended extraction of a second diversity signal from said received signal, said second device extracting said second diversity signal from said outer conductor of said [the] coax cable in a common mode; wherein [are provided] said first and second diversity signals [for improved] provide reception of truly spatially diverse communication[s] signals from [a] said transmitter by said receiver.

d) **Claim 24.** A method for obtaining two diversity signals from a single antenna and coax cable, comprising: connecting a single antenna to a receiver by an inner conductor and an outer conductor of a coax cable; said inner and outer conductors receiving a signal from a transmitter; differentially extracting a first diversity signal from said received signal across said inner conductor and outer conductor at a near end of said coax cable at a first input of said receiver; and single-endedly extracting a second diversity signal from said received signal, said second diversity signal is extracted from said outer conductor of said [the] coax cable with reference to a local ground at a [receiver input] second input of said receiver; wherein [are provided] said first and second diversity signals [for improved] provide reception of truly spatially diverse communication[s] signals from [a] said transmitter by said receiver.

***Allowable Subject Matter***

3. **Claims 22-24** are allowed.
4. The following is an examiner's statement of reasons for allowance:

Consider **claims 22 and 24**, the best prior art of record found during the examination of the present application, **Fowler (US Patent 6480169)** fails to specifically disclose said inner and outer conductors receiving a signal from a transmitter, a first device for differentially extracting a first diversity signal from said received signal, a second device for single-ended extraction of a second diversity signal from said

received signal, wherein said first and second diversity signals provide reception of truly spatially diverse communication signals from said transmitter by said receiver.

Fowler discloses an single antenna system for receiving two signals from L-band and MF-band respectfully (figure 4, abstract, column 2 line 66-column 3 line 32, column 4 lines 22-31), comprising: a single antenna (figure 4, antenna 100) connected to a receiver (figure 4, subsystem 120) by an inner conductor (inner conductor 106) and an outer conductor (outer conductor 108) of a coax cable (coax cable 115); a first device for differentially extracting a first diversity signal (figure 4, output of amplifier 140) across said inner conductor and outer conductor at a near end of said coax cable in a differential mode; and a second device for single-ended extraction of a second diversity signal (figure 4, output of amplifier 170, signal is extracted across outer conductor 108 and ground), said second device extracting said second signal from said outer conductor (outer conductor 108) of the coax cable in a common mode.

Fowler discloses the L-band signal is extracted from across inner and outer conductors of said coax cable (figure 4), and the MF band signal (different from L-band signal) is extracted from outer conductor with reference to ground. These teachings clearly differ from the claimed invention; therefore, claims 22-24 of the present application are considered novel and non-obvious over the prior art and, consequently, are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed**

**to:** Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RuiMeng Hu whose telephone number is 571-270-1105. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

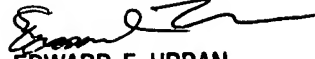
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 2618

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*RuiMeng Hu*  
R.H./rh  
July 31, 2007

  
EDWARD F. URBAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600